CHAIRMAN OF THE JOINT CHIEFS OF STAFF INSTRUCTION

J-6 CJCSI 5122.01A
DISTRIBUTION: A, B, C, J, S 29 January 1999

JOINT TACTICAL SWITCHED SYSTEMS AND NETWORKS MANAGEMENT CONFIGURATION CONTROL BOARD CHARTER

1. Purpose. This instruction facilitates implementation of the programs established in references a through f (Enclosure C) for the configuration control of tactical switched systems (TSS) and for the development and maintenance of a joint task force (JTF) network management (JNM) system. It empowers and institutionalizes a board, the Joint Tactical Switched Systems and Network Management Configuration Control Board (JTSSNMCCB), to advise the Executive Agent for TSS and JNM (EA-TSS/JNM) on coordinating initiatives regarding TSS and JNM systems within the joint communications community. This instruction delineates the JTSSNMCCB's responsibilities, composition, and basis for assembly. It further defines the functional role of an auxiliary activity serving board interests during recesses.

2. Cancellation. CJCSI 5122.01, 10 June 1994, is canceled.

3. Applicability. This instruction applies to the Military Services, Joint Staff, combatant commands, and those activities and agencies reporting to the Chairman of the Joint Chiefs of Staff.

4. Policy. Policy is provided in Enclosure A.

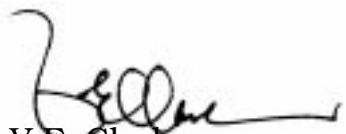
5. Definitions. Definitions are provided in the Glossary.

6. Responsibilities. Responsibilities are provided in Enclosure B.

7. Summary of Changes. The JNMCCB is included in the CJCSI to advise the EA for TSS on coordinating initiatives and systems within the joint communications community.

8. Releasability. This instruction is approved for public release; distribution is unlimited. DOD components (to include the combatant commands), other Federal agencies, and the public may obtain copies of this instruction through the Internet from the CJCS Directives Home Page--http://www.dtic.mil/doctrine/jel/cjcsd.htm. Copies are also available through the Government Printing Office on the Joint Electronic Library CD-ROM.

9. Effective Date. This instruction is effective upon receipt.



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Vice Admiral, U.S. Navy
Director, Joint Staff

Enclosures:
A – JTSSNMCCB Policy
B – JTSSNMCCB Responsibilities
C - References
Glossary

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ENCLOSURE A

JTSSNMCCB POLICY

1. A major aim of the Department of Defense is to advance command, control, communications, computers, and intelligence (C4I) interoperability capabilities in support of global military contingencies. A significant part of its attendant strategy is the objective of achieving compatibility, interoperability, and the ready integration of TSS and JNM systems within networks serving as the communications backbone of joint task forces (JTFs). Also of concern is the efficient management of syndicated networks serving as part of the tactical backbone and the deployed extensions of the Defense Information Infrastructure (DII)/Defense Information Systems Network (DISN).

2. ASD(C3I) established an EA-TSS to oversee and coordinate the development and life-cycle enhancement of TSS to ensure that every effort is made to achieve DOD compatibility, interoperability, and integration objectives for TSS. An essential part of the EA-TSS mandate is a requirement for monitoring and coordinating the efforts of the joint communications community for controlling the configuration of TSS in pursuit of DOD objectives. ASD(C3I) also established an EA-JNM to develop and maintain a JNM system capable of satisfying the network management requirements of deployed forces with the collateral aim of having tactical network controls consistent with those of the DII. In a move to achieve an economy of effort, the two executive agent activities have been combined and function as a joint EA-TSS/JNM enterprise.

3. The merged EA-TSS/JNM activity, in carrying out its responsibilities, is supported by the JTSSNMCCB, a joint board composed of representatives from the organizations within the joint communications community (see paragraph 6). The board represents a consolidation of the two boards that previously existed in support of the two aforementioned executive agent activities.

4. The consolidated JTSSNMCCB coordinates the configuration control of the software and hardware products associated with the TSS and switched networks of the defense communications community operated in deployment zones.

a. The TSS involved are the commercial and militarized voice switching, message switching, packet switching, and data systems that interoperate via tactical, commercial, and strategic communications

networks. They include embedded switches that are part of other functional systems making use of a tactical communications network and any other switches that may be developed to conform with network message criteria established for the support of JTF deployments. This coordination effort is organized to ensure that all TSS are compatible and interoperable and that they can be interfaced with not only the systems of the various Military Services on a battlefield, but the DISN, other national agencies, and selected allies.

b. The JNM systems of concern are those that operate as federated systems of commercial and government off-the-shelf products or are developed with features specifically designed to plan and control networks of military systems as well as provide for the network and spectrum planning, control, and trouble reporting required to satisfy JTF communications needs and yet serve as part of the DII control system.

c. In furthering its goals, the conjoint board will serve as an instrument of the baselining process for TSS and JNM software systems and proponent programs for upgrading interfacing equipment. The JTSSNMCCB will review and approve the release of new software versions and equipment upgrades to TSS and JNM systems to ensure that items affecting interoperability attain or maintain their mutually supporting functionality and do not degrade interoperability conditions.

5. The consolidated JTSSNMCCB provides a unified forum to address and resolve interface design, engineering, configuration control, and networking issues relating to software interaction, system interoperability, equipment compatibility, standardization, and the network management of tactical switched communications. It also serves to recommend the development, modification, use, and enforcement of standards for tactical switched communications and network management systems of the Military Services, Defense agencies, and joint commands. The board addresses issues regarding the interfacing of TSS with the DISN and the conduct of deployed network management in consonance with the Joint DII Control System (JDIICS). The board also makes recommendations to the EA-TSS/JNM for the development of joint guidance and directives on the configuration control of TSS and JNM systems and for elevating issues beyond the authority of the EA-TSS/JNM or JTSSNMCCB. Issues that cannot be resolved will be presented to the Interoperability Improvement Panel (IIP) of the Military Communications-Electronics Board (MCEB), or to the MCEB itself. Issue resolution is detailed in the JTSSNMCCB terms of reference, published separately. The JTSSNMCCB may establish subordinate committees as required to address programs and issues needing closer attention or more detailed work.

6. The unified JTSSNMCCB will be composed of representatives from each Military Service; CINCs with tactical switching and network management interests (USCINCACOM, USCINCPAC, USCINCEUR, USCINCCENT, USCINCSO, USCINCSOC, and USCINCSPACE, as the SATCOM Operational Manager); the Joint Interoperability and Engineering Organization (JIEO); the Joint Communications Support Element; DISA, as the DISN and JDIICS manager; DIA; NSA; and the Joint Staff (J-6).

a. The EA-TSS/JNM will chair the board and provide administrative and logistic support as required. The EA-TSS/JNM will be the facilitator or neutral trusted agent.

b. The DISA integration manager for switched systems attends as an observer. This excludes the DISA board representative, who addresses the strategic interfacing required with deployed networks. The DISA integration manager, like the EA-TSS/JNM, serves as a neutral agent and in a different capacity than the DISA representative.

c. The Coast Guard is an auxiliary member whose participation is discretionary and based upon issues of interest. Its organizations are placed on distribution for board-related documentation and monitor board activities.

d. Additional board members may be confirmed through a two-thirds majority vote. Board members may be supported as required by nonvoting attendees from the software or system-support, combat development, and material development activities of their organizations.

7. The JTSSNMCCB will be supported between sessions when required by an executive secretariat. The secretariat will be structured to support the board with technical and engineering expertise for the expeditious resolution of unforeseen technical problems or issues. All such issues or their resolution will be reported to the fully assembled JTSSNMCCB at its next scheduled meeting. Unresolved issues will become agenda items for resolution by a regularly convened board.

8. The secretariat is designed to serve as a constant, interim review and validation authority for ongoing projects facing unexpected critical exigencies. The secretariat, in that connection, provides a mechanism for the timely resolution of user problems. A committee activity, the secretariat will consist of representatives from the EA-TSS/JNM; the Joint Staff (J-6); the Marine Corps Systems Command; the Air Force Electronic Systems Center; JIEO; the Army Project Manager, Warfighter Information Network-Terrestrial; the Navy Space and Naval Warfare Systems Command; a single DISA element concerned with either the

DISN-Deployed or JDIICS, depending upon the issue being addressed; and NSA.

ENCLOSURE B

JTSSNMCCB RESPONSIBILITIES

1. The JTSSNMCCB will take the following actions to complete tasks assigned in this instruction:

a. Facilitate the synchronization of CINC, Service, and agency initiatives with regard to future TSS and JNM system acquisition so as to ensure network and intersystem compatibility, interoperability, and integration, as well as foster standardization and compliance with the Joint Technical Architecture (reference g). Such synchronization also seeks to preclude a duplication of effort and, thereby, realize fiscal economies for the Department of Defense.

b. Coordinate the management and control of efforts related to the planning, development, maintenance, and release of equipment, standards, specifications, and software and hardware baselines for TSS and deployed network-management systems of all the Services, combatant commands, and Defense agencies, collaborating and harmonizing such efforts as required with appropriate allied interfacing authorities.

c. Supervise, guide, and coordinate configuration-control processes for maintaining software and hardware baselines relevant to TSS and JNM systems that are both under development and fielded.

d. Resolve developmental, acquisition, and life-cycle engineering issues regarding TSS and JNM system software, hardware, and firmware, to include documentation.

e. Recommend the addition or deletion of new or old interface and management documentation, software systems, and tools for TSS and JNM systems, the latter of which would include such items as the Air Force's Tactical Network Analysis and Planning System Plus; the Army's Automated Tactical Frequency and Engineering System; the Marine Corps' System Planning, Engineering, and Evaluation Device; and the Defense Information Systems Agency's Joint Defense Information Infrastructure Control System Deployed.

f. Ensure that all change proposals for documentation, software systems, and tools are evaluated by appropriate constituent organizations for any possible impact on both developmental and operational TSS or JNM programs, as well as on switched-network interoperability.

Request that appropriate constituents submit change proposals for board review and accommodate board-directed changes that may be required for appropriate joint system interfacing.

g. Determine if a change proposal requires allied coordination and recommend appropriate action.

h. Determine the necessity and extent of testing required for the certification and integration of approved changes to TSS and JNM-system software, hardware, interfacing equipment, or related systems. The board may also require that additional information be provided before taking appropriate action.

i. Review, analyze, and evaluate proposed changes to communications standards and specifications for TSS and JNM used throughout the defense communications community and recommend, where possible, technological advances observed within the commercial, Federal, and international communications communities for improving JTF communications interoperability.

j. Maintain an interest in, and keep apprised of, actions taken in forums dealing with issues regarding C4I, interoperability, standardization, and the configuration management of communications systems.

k. Develop positions on TSS interoperability and JNM functionality that may be required by or presented at other forums.

l. Provide the US representatives to allied forums with positions to take regarding TSS and switched-network interoperability, TSS standardization, and JNM issues.

m. Identify and monitor each Service, agency, or joint-command initiative regarding TSS, TSS interoperability, and tactical network management.

n. Serve as the primary vehicle by which the EA-TSS/JNM will coordinate Service, agency, or joint command acquisition actions, life cycle management, and configuration management functions regarding TSS and JNM systems.

o. Decide on issues through consensus. Follow the rules for a majority vote and appeals as defined in the JTSSNMCCB terms of reference.

p. Refer unresolved issues or member reclamas to the appropriate panels of the Military Communications-Electronics Board for a decision. Follow the reclama procedures in the JTSSNMCCB terms of reference.

q. Convene as required based on requirement deadlines and the accrual of matters requiring board action. As a minimum, the board will convene on a semiannual basis.

2. The EA for TSS/JNM. The EA for TSS/JNM:

a. Provides guidance to the joint switching community on joint architecture compliance, TSS and tactical network interoperability, the coordination of TSS and JNM system acquisitions, standardization, and duplicated-effort eschewal.

b. Provides guidance for the coordinated development and maintenance of a JNM system for tactical deployments.

c. Provides guidance on JTSSNMCCB configuration control matters.

d. Allocates funds and provides material support to sustain JTSSNMCCB activities.

e. Supervises the work of the JTSSNMCCB and employs it as required on TSS configuration control and JNM matters.

f. Acts upon JTSSNMCCB recommendations and resolves issues.

g. Approves functional changes to this instruction.

h. Provides the JTSSNMCCB chair.

3. Heads of JTSSNMCCB Member Organizations. Member organizations appoint a representative to the board empowered to take a position on issues for their organizations. Members also support the board as required and ensure that board resolutions and tasks appropriate to their organization's functional capabilities are carried out.

4. JTSSNMCCB Chair. The JTSSNMCCB Chair:

a. Convenes the JTSSNMCCB, establishes its agenda, and chairs its activities.

b. Oversees and executes all administrative affairs of the JTSSNMCCB and monitors the affairs of its subordinate committees.

c. Monitors the activities of representatives to all joint and combined forums dealing with C4I interoperability and standardization and ensures that reports of forum proceedings are rendered to the JTSSNMCCB.

d. Issues directives developed by the board to subordinate committees.

e. Prepares and disseminates minutes of all proceedings to members and other interested agencies.

f. Appoints the board's executive and recording secretaries.

5. Member Representatives. Representatives attend JTSSNMCCB meetings, coordinate JTSSNMCCB actions within their organizations, and ensure that appropriate action, if required by the JTSSNMCCB, is taken. Representatives also coordinate as required with JTSSNMCCB subordinate committees.

6. Nonvoting Attendees. Nonvoting attendees support member representatives as required at board meetings with supporting technical discussions and briefings and abide by the rules of board attendance established in the terms of reference.

7. Executive Secretary. The Executive Secretary convenes and chairs the executive secretariat, when required, between sessions of the JTSSNMCCB to resolve technical TSS issues that cannot be postponed until the next meeting. The Executive Secretary performs functions similar to the JTSSNMCCB chairperson for meetings of the executive secretariat.

8. Executive Secretariat Members. Executive secretariat members convene at the direction of the Executive Secretary between sessions of the JTSSNMCCB to resolve pressing TSS issues. Members coordinate with JTSSNMCCB member representatives, as required, during the resolution of urgent issues and follow the rules of meeting conduct in the JTSSNMCCB terms of reference.

ENCLOSURE C

REFERENCES

a. Assistant Secretary of Defense (Command, Control, Communications and Intelligence) (ASD(C3I)) memorandum, 21 September 1992, "Responsibilities for Switched Systems"

b. ASD (C3I) memorandum, 7 July 1993, "Responsibilities for Switched Systems"

c. ASD (C3I) memorandum, 26 November 1993, "Guidelines for Procurement and Fielding of DoD Tactical Switched Systems"

d. ASD (C3I) memorandum, 17 August 1993, "Responsibilities for Joint Task Force Network Management Systems"

e. CJCS Instruction 6212.01A, 30 June 1995, "Compatibility, Interoperability, and Integration of Command, Control, Communications, Computers, and Intelligence Systems"

f. MIL-STD-973, 17 April 1993, “Military Standard Configuration Management”

g. “Department of Defense Joint Technical Architecture, “Version 2.0, 26 May 1998

h. “Terms of Reference for the Joint Tactical Switched Systems Configuration Control Board, “6 May 1994, with approved changes of 7 March 1995, 7 November 1995, and 6 February 1996

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GLOSSARY

1. Baseline. A configuration identification document or set of documents or software version formally designated and fixed at a specific time during a configuration item's (CI's) life cycle. Hardware configurations may also be considered baseline elements. Baselines plus approved changes to those baselines constitute a current configuration identification. A baseline is used as a starting point or milestone for testing or making system changes.

2. Change Proposal.

a. An Engineering Change Proposal (ECP) is defined as a formal document proposing a change to technical interface documents or software configuration items for systems or equipment related to technical interoperability. The proposed engineering change is supported by appropriate documentation describing the change along with impact assessments pertinent to its implementation. The format and preparation instructions for an ECP are contained in reference f.

b. An Interface Change Proposal (ICP) is the fully documented means for proposing changes to procedural interface software baselines, procedural standards, and related procedural interface documentation for message and data link systems. ICPs are reviewed and coordinated by appropriate organizations within the Department of Defense, endorsed and approved by joint configuration control boards, and processed by joint organizations like JIEO, JITC, and EA-TSS/JNM when procedural interoperability is of concern. The acronym ICP in this context should not be confused with that standing for Inter/Intra Theater Contingency Package.

3. Configuration. The functional and physical characteristics of existing or planned hardware, firmware, and software, or a combination thereof, as set forth in technical documentation and, ultimately, achieved in a product.

4. Configuration Control. The control achieved over the configuration of an item through the systematic proposal, justification, evaluation, coordination, and weighed acceptance of proposed changes and their implementation following the establishment of a configuration baseline.

5. Configuration Control Board. A board composed of technical and administrative representatives who recommend approval or disapproval

of proposed engineering changes to a CI's current approved configuration documentation. The board also recommends approval and disapproval of proposed waivers and deviations from a CI's current approved configuration documentation. The board described in this instruction also makes recommendations for the control of operational applications and employment concepts in the interest of interoperability and standardization.

6. Compatibility. The capability of two or more items or components of equipment or material to exist or function in the same system or environment without mutual interference.

7. Firmware. A hardware device, circuit board, or card, either hardwired into a system or of a plug-in nature, that has computerized, chip-stored instructions or data residing on it and serves as a read-only program. The instructions/data cannot be commanded or modified under computer program control/manipulation.

8. Hardware. Items fabricated of material, such as weapons, aircraft, ships, tools, computers, vehicles, and their components (mechanical, electrical, electronic, hydraulic, and pneumatic). Computer software and technical documentation are excluded.

9. Interface. A boundary or point common to two or more command and control systems or subsystems, communications systems or equipment, or other entities over which a necessary information flow takes place. A joint interface implies that the boundary is shared by two or more Services and/or agencies. A combined interface is shared by entities from one or more US Services and/or agencies and those of an allied nation; simply, it is the functional and physical characteristics required for an exchange at a common boundary.

10. Interoperability

a. The condition achieved among communications-electronics systems or items of communications-electronics equipment wherein information or services can be exchanged directly and satisfactorily between the systems or items and their users. The degree of interoperability should be defined when referring to specific cases.

b. The ability of systems, units, or forces to provide services to and accept services from other systems, units, or forces and to use these services to operate effectively together.

11. Integration. The process of bringing together elements to make a whole or complete item, system, or process.

12. Management. The act, manner, or practice of directing, influencing, facilitating, guiding, supervising, and controlling.

13. Network. An interlinked web of switching and transmission systems connected to subscriber communications terminals. A network includes all the hardware and software components residing in switching and transmission systems, as well as the communications-related hardware and software and components residing in hosts (e.g., communications protocols).

14. Network Management. A communications discipline related to monitoring, controlling, and managing communications networks to ensure their operating status and integrity and to ensure that communications services are provided efficiently and effectively. As described in ISO/IEC 7498-1 (OSI Reference Model), network management consists of fault management, configuration management, performance management, security management, and accounting management. For tactical deployments, it includes network planning, management and control; spectrum planning, management, and control; and network security management.

15. Software. A combination of associated computer instructions and computer data definitions required to enable computer hardware to perform computational or control functions.

16. Switched-Network Interoperability. The summation of interactions between equipments or between users via or with equipment that enables the exchange of information (voice, data, and facsimile) to occur on a switched-network basis.

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